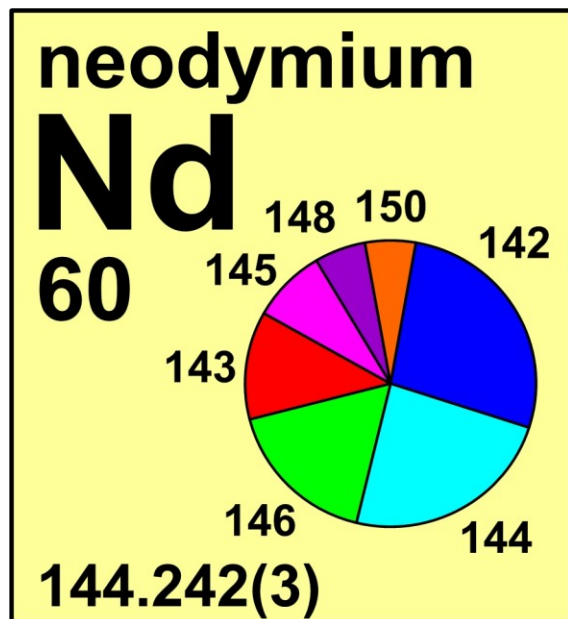


neodymium



Stable isotope	Atomic mass*	Mole fraction
^{142}Nd	141.907 7233	0.272
^{143}Nd	142.909 8143	0.122
^{144}Nd	143.910 0873	0.238
^{145}Nd	144.912 5736	0.083
^{146}Nd	145.913 1169	0.172
^{148}Nd	147.916 893	0.057
^{150}Nd	149.920 891	0.056

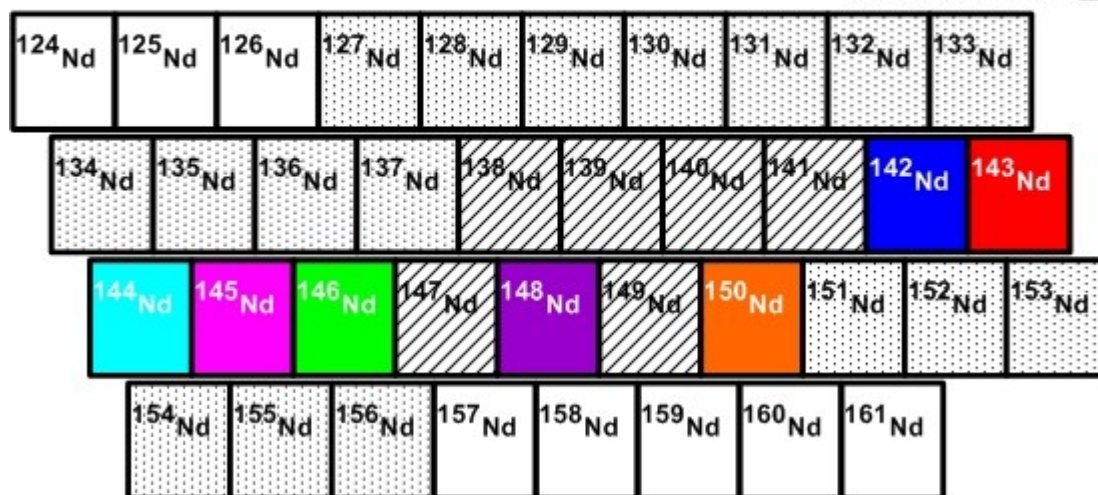
* Atomic mass given in unified atomic mass units, u.

Half-life of radioactive isotope

Less than 1 second

Between 1 second and 1 hour

Greater than 1 hour



Important applications of stable and/or radioactive isotopes

Isotopes in geochemistry

- 1) $^{143}\text{Nd}/^{144}\text{Nd}$ is used for dating rocks and as a chemical tracer in geochemistry.

Isotopes in physics

- 1) Double beta decay has been studied using ^{150}Nd .

Isotopes in industry

- 1) ^{146}Nd is being studied for possible use in the production of ^{147}Pm , a radioisotopic power generation source.

**Applications of neodymium isotopes are still being researched and this page will be updated shortly. **